

ABSTRACT

A soil sampling system that in one embodiment includes a drill rod, a sampler or core barrel and an adapter coupling, for connecting the sampler barrel to the drill rod. In one embodiment the drill rod provides vibratory drilling movement, and the sampler barrel collects soil samples. The adapter coupling may include a barrel adapter for attaching the adapter coupling to the sampler barrel, a rod adapter for connecting the adapter coupling to the drill rod, and an isolating mechanism to isolate the sampler barrel from any upward vibratory movement of said drill rod. As such, the sampler barrel receives only downward motion from the drill rod. In one embodiment, the isolating mechanism of the soil sampling system includes an isolator box connected to the rod adapter. The soil sampling system may also include an isolator pin attached to the barrel adapter. In an embodiment of the soil sampling system, the rod adapter drives the isolator pin during a downward stroke of said drill rod. Then, the rod adapter lifts away and is removed from the isolator pin on an upward stroke of the drill rod. The isolator box maintains a coupling allowing relative movement between the rod adapter and the isolator pin.